



IT 314

Software Engineering

SPRINT 1 – USER CONTROLLER MUTATION TESTING

Fork & Feast

Group 28

➤ Tool Used:

Stryker-mutator/mocha-runner @8.6.0

Link to the source code: [UserController](#)

Link to the test file: [UserController test](#)

➤ Test Report:

Mutation testing [=====] 100% (elapsed: <1m, remaining: n/a) 205/205 Mutants tested (20 survived, 15 timed out)

All tests/userController_test.js

- ✓ Auth Controller signup_post should return 409 if user already exists (killed 5)
- ✓ Auth Controller signup_post should return 400 for an invalid email domain (killed 11)
- ✓ Auth Controller signup_post should return 401 if passwords do not match (killed 11)
- ✓ Auth Controller signup_post should handle error when saving user fails (killed 5)
- ✓ Auth Controller signup_post should handle error when sending confirmation email fails (killed 3)
- ✓ Auth Controller forgotPassword should return 401 when owner tries to use customer route (killed 7)
- ✓ Auth Controller forgotPassword should return 401 when customer tries to use owner route (killed 1)
- ✓ Auth Controller forgotPassword should return 401 for unregistered email (killed 4)
- ✓ Auth Controller forgotPassword should handle error when creating new token (killed 9)
- ✓ Auth Controller forgotPassword should handle nodemailer transport creation error (killed 1)
- ✓ Auth Controller login_post should log in the user with valid credentials (killed 15)
- ✓ Auth Controller login_post should return 403 for unverified email (killed 4)
- ✓ Auth Controller login_post should return 401 for invalid email (killed 4)
- ✓ Auth Controller login_post should return 401 for invalid password (killed 4)
- ✓ Auth Controller login_post should return 401 for mismatched user type (killed 4)
- ✓ Auth Controller login_post should handle database errors during login (killed 2)
- ✓ Auth Controller resetPassword should reset the password for a valid token (killed 10)
- ✓ Auth Controller resetPassword should return 404 for invalid token (killed 4)
- ✓ Auth Controller resetPassword should return 401 when no password provided (killed 4)
- ✓ Auth Controller resetPassword should return 400 when user not found (killed 4)
- ✓ Auth Controller resetPassword should handle error when saving new password (killed 2)
- ✓ Auth Controller confirmEmail should redirect to login page for valid token (killed 14)
- ✓ Auth Controller confirmEmail should handle invalid token (killed 3)
- ✓ Auth Controller confirmEmail should handle non-existent user (killed 4)
- ✓ Auth Controller confirmEmail should redirect customer to customer login page (killed 2)
- ✓ Auth Controller sendresetpasswordmail should handle email sending error with proper error check (killed 10)
- ✓ Auth Controller sendresetpasswordmail should properly log success message with response info (killed 3)
- ✓ Auth Controller sendresetpasswordmail should include correct mail options (killed 5)
- ~ Auth Controller sendresetpasswordmail should handle sendMail errors correctly (covered 16)
- ✓ Auth Controller sendConfirmationEmail should send email with correct options (killed 9)
- ✓ Auth Controller errorHandle should return default message when error message is empty (killed 5)

All tests				
Mutants Tests				
All tests				
184 20				
File / Directory	Killing	Covering	Not Covering	Total tests
All tests	30	1	0	31
JS userController_test.js	30	1	0	31

➤ Coverage Report:

Ran 1.26 tests per mutant on average.

File	% Mutation score		# killed	# timeout	# survived	# no cov	# errors
	total	covered					
All files	89.76	90.20	170	14	20	1	0
userController.js	89.76	90.20	170	14	20	1	0

All files

Mutants Tests

All files

184 20

File / Directory	Mutation Score		Killed	Survived	Timeout	No coverage	Ignored	Runtime errors	Compile errors	Detected	Undetected	Total
	Of total	Of covered										
All files	89.76	90.20	170	20	14	1	0	0	0	184	21	205
userController.js	89.76	90.20	170	20	14	1	0	0	0	184	21	205

Link to the test file: [Coverage Report](#)